

5' GCT CCC CGC GGC GGC TGG CGT CGG GAA AGT ACA GTA AAA AGT CCG AGT GCA GCC
 9 18 27 36 45 54

63 72 81 90 99 108
 GCC GGG CGC AGG ATG GGA TCC GGC TCC AGC TAC CGG CCC AAG GCC ATC TAC
 M G S G S S Y R P K A I Y

117 126 135 144 153 162
 CTG GAC ATC GAT GGA CGC ATT CAG AAG GTA ATC TTC AGC AAG TAC TGC AAC TCC
 L D I D G R I Q K V I F S K Y C N S

171 180 189 198 207 216
 AGC GAC ATC ATG GAC CTG TTC TGC ATC GCC ACC GGC CTG CCT CGG AAC ACG ACC
 S D I M D L F C I A T G L P R N T T

225 234 243 252 261 270
 ATC TCC CTG CTG ACC ACC GAC GAC GGC ATG GTC TCC ATC GAC CCC ACC ATG CCC
 I S L L T T D D A M V S I D P T M P

279 288 297 306 315 324
 GCG AAT TCA GAA CGC ACT CCG TAC AAA GTG AGA CCT GTG GCC ATC AAG CAA CTC
 A N S E R T P Y K V R P V A I K Q L

333 342 351 360 369 378
 TCC GCT GGT GTC GAG GAC AAG AGA ACC ACA AGC CGT GGC CAG TCT GCT GAG AGA
 S A G V E D K R T T S R G Q S A E R

FIGURE 1A

387 CCA CTG AGG GAC AGA CGG GTT GTG GGC CTG GAG CAG CCC CGG AGG GAA GGA GCA 432
P L R D R R R V V G L E Q P R R E G A

441 TTT GAA AGT GGA CAG GTA GAG CCC AGG CCC AGA GAG CCC CAG GGC TGC TAC CAG 486
F E S G Q V E P R P R E P Q G C Y Q

495 GAA GGC CAG CGC ATC CCT CCA GAG AGA GAA GAA TTA ATC CAG AGC GTG CTG GCG 540
E G Q R I P P E R E E L I Q S V L A

549 CAG GTT GCA GAG CAG TTC TCA AGA GCA TTC AAA ATC AAT GAA CTG AAA GCT GAA 594
Q V A E Q F S R A F K I N E L K A E

603 GTT GCA AAT CAC TTG GCT GTC CTA GAG AAA CGC GTG GAA TTG GAA GGA CTA AAA 648
V A N H L A V L E K R V E L E G L K

657 GTG GTG GAG ATT GAG AAA TGC AAG AGT GAC ATT AAG AAG ATG AGG GAG GAG CTG 702
V V E I E K C K S D I K K M R E E L

711 GCG GCC AGA AGC AGG ACC AAC TGC CCC TGT AAG TAC AGT TTT TTG GAT AAC 756
A A R S S R T N C P C K Y S F L D N

FIGURE1B

765 CAC AAG AAG TTG ACT CCT CGA CGC GAT GTT CCC ACT TAC CCC AAG TAC CTG CTC 810
H K K L T P R R D V P T Y P K Y L L

819 TCT CCA GAG ACC ATC GAG GCC CTG CGG AAG CCG ACC TTT GAC GTC TGG CTT TGG 864
S P E T I E A L R K P T F D V W L W

873 GAG CCC AAT GAG ATG CTG AGC TGC CTG GAG CAC ATG TAC CAC GAC CTC GGG CTG 918
E P N E M L S C L E H M Y H D L G L

927 GTC AGG GAC TTC AGC ATC AAC CCT GTC ACC CTC AGG AGG TGG CTG TTC TGT GTC 972
V R D F S I N P V T L R R R W L F C V

981 CAC GAC AAC TAC AGA AAC AAC CCC TTC CAC AAC TTC CGG CAC TGC TTC TGC GTG 1026
H D N Y R N N P F H N F R H C F C V

1035 GCC CAG ATG ATG TAC AGC ATG GTC TGG CTC TGC AGT CTC CAG GAG AAG TTC TCA 1080
A Q M M Y S M V W L C S L Q E K F S

1089 CAA ACG GAT ATC CTG ATC CTA ATG ACA GCG GCC ATC TGC CAC GAT CTG GAC CAT 1134
Q T D I L I L M T A A I C H D L D H

FIGURE1C

1143	1152	1161	1170	1179	1188
CCC GGC TAC AAC AAC ACG TAC CAG ATC AAT GCC CGC ACA GAG CTG GCG GTC CGC					
P G Y N N T Y Q I N A R T E L A V R					
1197	1206	1215	1224	1233	1242
TAC AAT GAC ATC TCA CCG CTG GAG AAC CAC CAC TGC GCC GTG GCC TTC CAG ATC					
Y N D I S P L E N H H C A V A F Q I					
1251	1260	1269	1278	1287	1296
CTC GCC GAG CCT GAG TGC AAC ATC TTC TCC AAC ATC CCA CCT GAT GGG TTC AAG					
L A E P E C N I F S N I P P D G F K					
1305	1314	1323	1332	1341	1350
CAG ATC CGA CAG GGA ATG ATC ACA TTA ATC TTG GCC ACT GAC ATG GCA AGA CAT					
Q I R Q G M I T L I L A T D M A R H					
1359	1368	1377	1386	1395	1404
GCA GAA ATT ATG GAT TCT TTC AAA GAG AAA ATG GAG AAT TTT GAC TAC AGC AAC					
A E I M D S F K E K M E N F D Y S N					
1413	1422	1431	1440	1449	1458
GAG GAG CAC ATG ACC CTG CTG AAG ATG ATT TTG ATA AAA TGC TGT GAT ATC TCT					
E E H M T L L K M I L I K C C D I S					
1467	1476	1485	1494	1503	1512
AAC GAG GTC CGT CCA ATG GAA GTC GCA GAG CCT TGG GTG GAC TGT TTA TTA GAG					
N E V R P M E V A E P W V D C L L E					

FIGURE1D

1521 1530 1539 1548 1557 1566
 GAA TAT TTT ATG CAG AGC GAC CGT GAG AAG TCA GAA GGC CTT CCT GTG GCA CCG
 E Y F M Q S D R E K S E G L P V A P

 1575 1584 1593 1602 1611 1620
 TTC ATG GAC CGA GAC AAA GTG ACC AAG GCC ACA GCC CAG ATT GGG TTC ATC AAG
 F M D R D K K V T K A T A Q I G F I K

 1629 1638 1647 1656 1665 1674
 TTT GTC CTG ATC CCA ATG TTT GAA ACA GTG ACC AAG CTC TTC CCC ATG GTT GAG
 F V L I P M F E T V T K L F P M V E

 1683 1692 1701 1710 1719 1728
 GAG ATC ATG CTG CAG CCA CTT TGG GAA TCC CGA GAT CGC TAC GAG GAG CTG AAG
 E I M L Q P L W E S R D R Y E E L K

 1737 1746 1755 1764 1773 1782
 CGG ATA GAT GAC GCC ATG AAA GAG TTA CAG AAG AAG ACT GAC AGC TTG ACG TCT
 R I D D A M K E L Q K K T D S L T S

 1791 1800 1809 1818 1827 1836
 GGG GCC ACC GAG AAG TCC AGA GAG AGA AGC AGA GAT GTG AAA AAC AGT GAA GGA
 G A T E K S R E R S R D V K N S E G

 1845 1854 1863 1872 1881 1890
 GAC TGT GCC TGA GGA AAG CGG GGG GCG TGG CTG CAG TTC TGG ACG GGC TGG CCG
 D C A

FIGURE 1E

FIGURE 1F

1899	1908	1917	1926	1935	1944
AGC TGC GCG GGA TCC TTG TGC AGG GAA GAG CTG CCC TGG GCA CCT GGC ACC ACA					
1953	1962	1971	1980	1989	
AGA CCA TGT TTT CTA AGA ACC ATT TTG TTC ACT GAT ACA AAA AAA AAA AA 3'					

FIGURE 1F

FIGURE 2A

118	R	R	E	G	A	F	E	S	G	Q	V	-	-	-	-	-	-	-	-	-	-	-	E	P	R	P	R	E	P	Q	G	C	Y	Q	E	G	Q	R	I	P	PDE9A																				
200	I	R	H	Y	-	V	S	I	I	R	V	C	N	G	N	N	K	A	E	K	I	S	E	C	V	Q	S	D	T	R	T	D	N	Q	T	G	K	H	K	D	PDE8A																				
103	Q	Q	E	F	D	L	P	S	L	R	V	-	-	-	-	-	-	-	-	-	E	D	N	P	E	L	V	A	A	A	G	Q	Q	S	A	G	Q	Y	A	g829179																					
147	P	E	R	E	E	L	-	I	Q	S	V	L	A	Q	V	A	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Q	F	S	R	A	F	K	I	N	E	L	K	A	E	-	-	V	A	PDE9A						
239	R	R	K	G	S	L	D	V	K	A	V	A	S	R	A	T	E	V	S	S	Q	R	R	H	S	S	M	A	R	I	H	S	M	T	I	E	A	P	I	T	PDE8A																				
136	R	S	R	S	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	G	P	P	M	S	Q	I	S	G	V	K	-	-	-	-	-	-	g829179					
179	N	H	L	A	V	L	E	K	R	V	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	L	E	G	L	K	V	V	E	I	E	K	C	K	S	D	I	PDE9A						
279	K	V	I	N	V	I	N	A	A	Q	E	S	S	P	M	P	V	T	E	A	L	D	R	V	L	E	I	L	R	T	E	L	Y	S	P	Q	F	G	A	PDE8A																					
153	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	T	F	G	V	g829179
206	K	K	-	-	-	-	-	-	-	-	-	M	R	E	E	L	A	A	R	S	S	R	T	N	C	P	C	K	Y	S	F	L	D	N	H	K	K	L	T	P	R	R	PDE9A																		
319	K	D	D	P	H	A	N	D	L	V	G	L	M	S	D	G	L	R	L	S	G	N	E	Y	V	L	S	T	K	N	T	Q	M	V	S	S	N	PDE8A																							
172	-	-	E	T	P	R	E	N	E	L	-	G	T	L	L	G	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	g829179				
239	D	V	P	T	Y	P	K	Y	L	L	S	P	E	T	I	E	A	L	R	K	P	T	F	D	V	W	L	W	E	P	N	E	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	PDE9A									
359	I	I	T	P	I	S	L	D	D	V	P	P	R	I	A	R	A	M	E	N	E	E	Y	-	-	W	D	F	D	I	F	E	L	E	A	A	T	H	N	R	PDE8A																				
186	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	W	G	I	Q	I	F	S	I	G	E	F	S	V	N	R	g829179																				

FIGURE 2B

272	-	L	S	C	L	E	-	H	M	Y	H	D	L	G	L	V	R	D	F	S	I	N	P	V	T	L	R	R	W	L	F	C	V	H	D	N	Y	-	R	N	PDE9A
397	P	L	I	Y	L	G	L	K	M	F	A	R	F	G	I	C	E	F	L	H	C	S	E	S	T	L	R	S	W	L	Q	I	I	E	A	N	Y	H	S	S	PDE8A
204	P	L	T	C	V	A	Y	T	I	F	Q	S	R	E	L	L	T	S	L	M	I	P	K	T	F	L	N	F	M	S	T	L	E	D	H	Y	V	K	D	g829179	
309	N	P	F	H	N	F	R	H	C	F	V	A	Q	M	M	Y	S	M	V	L	C	S	L	Q	E	K	F	S	Q	T	D	I	L	I	L	M	T	A	PDE9A		
437	N	P	Y	H	N	S	T	H	S	A	D	V	L	H	A	T	A	Y	F	L	S	K	E	R	I	K	E	T	L	D	P	I	D	E	V	A	A	L	I	A	PDE8A
244	N	P	F	H	N	S	L	H	A	A	D	V	T	Q	S	T	N	V	L	L	N	T	P	A	L	E	G	V	F	T	P	L	E	V	G	A	L	F	A	g829179	
349	A	I	C	H	D	L	D	H	P	G	Y	N	N	T	Y	Q	I	N	A	R	T	E	L	A	V	R	Y	N	D	I	S	P	L	E	N	H	H	C	A	V	PDE9A
477	A	T	I	H	D	V	D	H	P	G	R	T	N	S	F	L	C	N	A	G	S	E	L	A	I	L	Y	N	D	T	A	V	L	E	S	H	H	A	A	L	PDE8A
284	A	C	I	H	D	V	D	H	P	G	L	T	N	Q	F	L	V	N	S	S	S	E	L	A	L	M	Y	N	D	E	S	V	L	E	N	H	H	L	A	V	g829179
389	A	F	Q	I	L	A	E	P	E	-	C	N	I	F	S	N	I	P	P	D	G	F	K	Q	I	R	Q	G	M	I	T	L	I	L	A	T	D	M	A	R	PDE9A
517	A	F	Q	L	T	G	D	D	K	-	C	N	I	F	K	N	M	E	R	N	D	Y	R	T	L	R	Q	G	I	I	D	M	V	L	A	T	E	M	T	K	PDE8A
324	A	F	K	L	L	Q	N	Q	G	-	C	D	I	F	C	N	M	Q	K	K	Q	R	Q	T	L	R	K	M	V	I	D	I	V	L	S	T	D	M	S	K	g829179
428	H	A	E	I	M	D	S	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	PDE9A	
557	H	F	E	H	V	N	K	E	V	N	S	I	N	K	P	L	A	T	L	E	N	G	E	T	D	K	N	Q	E	V	I	N	T	M	L	R	T	P	E	PDE8A	
363	H	M	S	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	g829179	

FIGURE 2C

FIGURE 2D

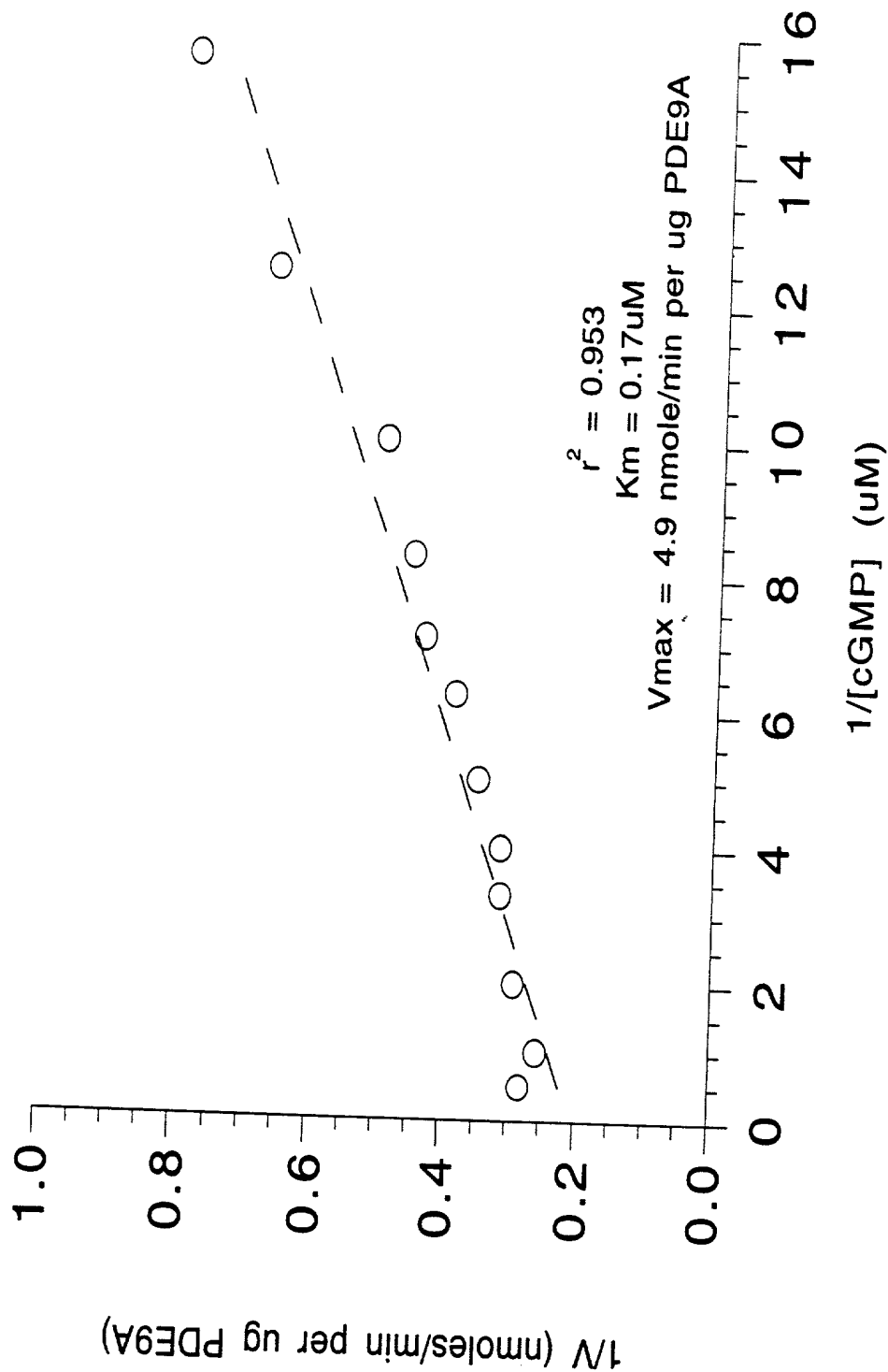


FIGURE 3

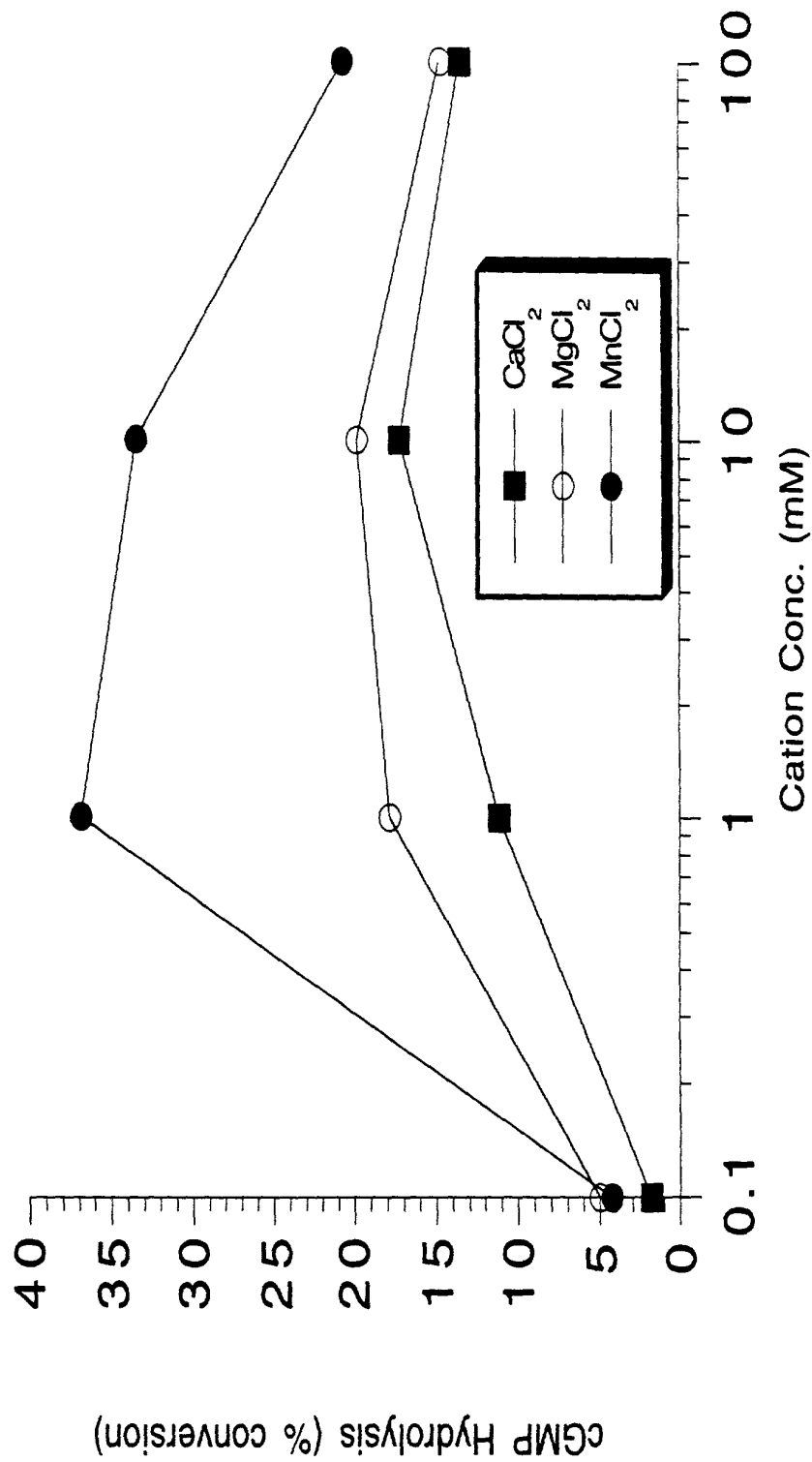


FIGURE 4

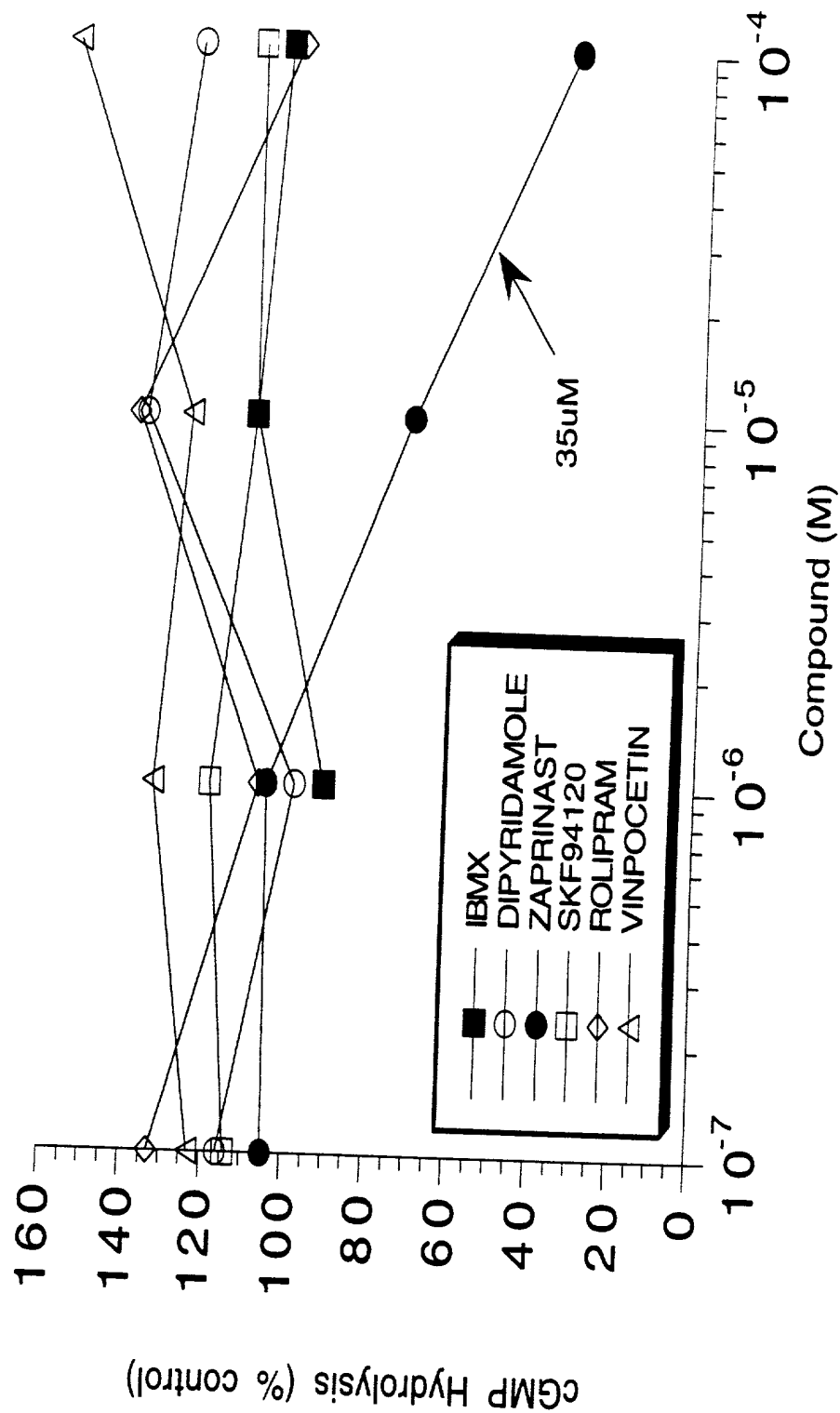


FIGURE 5